

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of

Increasing Public Safety Interoperability by)
Promoting Competition for Public Safety) PS Docket 10-168
Communications Technologies)

COMMENTS OF APCO

The Association of Public-Safety Communications Officials-International, Inc. (“APCO”) hereby submits the following comments in response to the Commission’s *Public Notice*, DA 10-1556 (released August 19, 2010), in the above-captioned proceeding.

Founded in 1935, APCO is the nation’s oldest and largest public safety communications organization. Most APCO members are state or local government employees who design, manage, and operate public safety communications systems for police, fire, emergency medical, forestry conservation, highway maintenance, disaster relief, and other public safety agencies. APCO is the largest FCC-certified coordinator for Public Safety Pool radio frequencies and appears regularly before the Commission on a wide range of issues regarding public safety communications.

APCO strongly supports the Commission’s goal of promoting competition and interoperability for public safety communications equipment. State and local government public safety agencies must have access to affordable, feature-rich, and interoperable devices and networks to fulfill their responsibilities to protect the safety of life, health and property. The following discussion sets forth and addresses each of the questions in the *Public Notice*.

1. *What are the factors that affect the current state of competition in the provision of public safety communications equipment? Are there any additional barriers to additional manufacturers supplying network equipment to the public safety community for narrowband communications? For broadband communications?*

Historically, the public safety radio equipment marketplace has consisted of one vendor with a majority of the market, one or two strong competitors, and several companies with smaller shares of the market. That scenario developed largely because of the relatively small size and specialized nature of the public safety marketplace. Even when considered part of the larger private land mobile radio (PLMR) market, the number of users and potential purchasers has simply been too small to attract companies willing to commit substantial resources for research, development and marketing of equipment that has few if any applications in other markets. Compounding the situation, public safety customers have sometimes sought equipment capabilities unique to their agencies, further shrinking the potential for competitive sources of equipment.

The public safety market is further fragmented by the lack of a common frequency band. Different agencies operated in VHF low band (use of which is relatively rare today), VHF high band, UHF, 700 MHz and 800 MHz. While some large vendors produce equipment for all bands, many smaller competitors are forced to limit their product lines to a particular band. Furthermore, public safety frequency bands below 800 MHz are not adjacent to commercial frequency bands. One of the key advantages to the 700 MHz band is that commercial broadband systems will be in adjacent blocks, which will hopefully lead to greater competition for equipment.

Finally, the much larger commercial radio marketplace evolved around cellular architecture. Public safety and other PLMR systems have generally not used cellular technology

due to geographic coverage requirements, site acquisition costs, and the relatively small number of users in a particular area. Thus, equipment and technologies developed for commercial markets have not been viable alternatives for the public safety/PLMR market in most situations.

2. *How would additional competition in the provision of public safety communications equipment improve narrowband or broadband interoperability? Conversely, what impact does the current state of competition in the provision of public safety communications equipment and devices have on interoperability? How would additional competition in the provision of public safety communications equipment improve narrowband or broadband interoperability?*

Standing alone, competition can actually *reduce* interoperability by introducing competitively priced products that are incompatible with existing equipment. Therefore, competition must go hand-in-hand with appropriate and widely-accepted equipment standards to ensure interoperability across competing manufacturers and product lines. There must also be requirements, or at least strong incentives, for users to acquire equipment meeting the interoperability standards.

While interoperability standards are essential, it is also important that the standards not be overly intrusive. Only that which is absolutely necessary for interoperability should be standardized. Otherwise, there is a risk that the difficulty and cost of meeting highly specific standards will deter competition, drive up prices for standardized equipment, and lead some users to opt for incompatible, but far less expensive, equipment. The result could be a reduction, not an improvement, in interoperability. Of course, the option of buying cheap, incompatible equipment will not exist where users are required by rule or other binding provision (*e.g.* a broadband lease agreement) to follow a particular standard.

Improved competition will also lead to lower prices overall, making it possible for licensees with aging, incompatible equipment to upgrade to more interoperable, standardized

equipment. Public safety radios are usually ruggedized and built to very high standards, which allows agencies to postpone upgrading to state-of-art equipment. State and local government agencies also face tight budgets and often must plan for extremely long life spans for major equipment (10, 15, and even 20-year-old equipment is common). However, if competition led to lower prices, then many licensees would be willing to migrate to modern, more interoperable, equipment.

3. *Could open standards for public safety equipment increase competition? What actions could the Commission take to facilitate openness?*

In theory, open standards would obviously increase competition by eliminating potential barriers to entry. However, the benefits of open standards must be balanced against the need to incentivize innovation through research and development.

4. *What are the limitations of Project 25 in promoting narrowband public safety communications interoperability? What actions, if any, should the Commission take to rectify these limitations?*

Project 25 has promoted competition by creating a common digital interoperability standard that has been adopted by numerous competing vendors who offer a host equipment options to agencies seeking interoperable digital radios.¹ A key advantage of Project 25 over others standards efforts is that it brings together users and manufacturers to develop viable, user-driven standards. However, the formal ANSI-standards process for Project 25 has been extremely slow, and may not be the best model for the future. The lack of funding has also slowed public safety user participation, forcing reliance on volunteers who have full time

¹ See http://www.project25.org/images/stories/ptig/docs/P25_PTIG_Equipment_Mfrs_2010-August.pdf

positions in public safety. Another limitation is that the technologies considered by P25 are necessarily limited to those able to meet the specialized land mobile radio requirements of public safety in the U.S. That is less a function of P25 than of the more generalized nature of land mobile radio as it has developed over the last 75 years in this country, and the need to adopt a standard that works for both large rural states and densely-populated urban areas.

One of the advantages of Project 25 is that the FCC has adopted it as a requirement for interoperability channels in 700 MHz narrowband equipment. However, there are no similar requirements for interoperability channels in other bands (where over 95% of current licensees operate), which limits the potential benefits of Project 25. Some agencies, faced with the choice of more expensive Project 25-compliant equipment or non-compliant options, have chosen the latter to save money, which then limits interoperability in many areas.

5. *As the Commission considers requirements for the 700 MHz broadband public safety network, are there any requirements on public safety equipment or network operators that would increase competition in the provision of public safety equipment? How can the Commission's work on requirements for the 700 MHz broadband public safety network be leveraged to promote interoperability between narrowband and broadband networks?*

The FCC has already embarked on the first important step, ensuring that there is a common technology standard (LTE) that is also widely used in the commercial marketplace. That will drive down the cost of public safety equipment for the broadband market, while preserving interoperability.

APCO also believes that the Commission should take steps to ensure that devices in the public safety portion of the 700 MHz band are backwards compatible with commercial 3G

networks. This recommendation, if voluntarily adhered to, will enable better nationwide interoperability between commercial and public safety networks.

For many years to come, commercial 3G networks will have better nationwide coverage than new 700 MHz broadband LTE networks. Thus a 700 MHz-only device will have a limited footprint, leaving many areas unserved. A dual band LTE/3G device, in contrast, would have the potential to provide far more coverage and “interoperability” across users in different geographic areas. Devices that have 3G, in addition to public safety's Band 14, can be sold to a much larger market than single band devices limited to 700 MHz alone, thus reducing equipment cost and allowing more agencies to realize the interoperability and operability benefits of the 700 MHz public safety broadband network.

CONCLUSION

APCO urges the Commission to proceed with appropriate efforts to promote competition and interoperability for public safety communications equipment.

Respectfully submitted,

/s/

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